

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

PURPOSE: This rule establishes the maximum allowable concentration of sulfur compounds in source emissions and in the ambient air.

Editor's Note: The following material is incorporated into this rule by reference:

1) Office of the Federal Register, National Archives and Records Administration, Performance Specifications 2 and 3, 40 Code of Federal Regulations part 60, Appendix B (Washington, D.C.: U.S. Government Printing Office, 1977);

2) Office of the Federal Register, National Archives and Records Administration, 40 Code of Federal Regulations 60.13(d) and (c)(2) (Washington, D.C.: U.S. Government Printing Office, 1977);

3) Office of the Federal Register, National Archives and Records Administration, 40 Code of Federal Regulations 60.13(h) and 60.45(e) and (f) (as corrected at 42 Federal Register 41122) (Washington, D.C.: U.S. Government Printing Office, 1977).

In accordance with section 536.031(4), RSMo, the full text of material incorporated by reference will be made available to any interested person at the Office of the Secretary of State and the headquarters of the adopting state agency.

(1) Applicability.

(A) This rule applies to any installation that is an emission source of sulfur compounds, except where 10 CSR 10-6.070 applies.

(B) Section (3) of this rule shall apply to all sulfur compound emissions except from—

1. Indirect heating sources; and
2. Existing lead smelting and/or refining sources.

(C) Section (4) restricts sulfur dioxide concentrations in the ambient air.

10 CSR 10-6.260

(D) Section (5) restricts sulfur dioxide emissions from indirect heating sources greater than three hundred fifty thousand British thermal units (350,000 BTUs) per hour actual heat input.

(E) Section (6) shall apply to sulfur compound emissions from existing lead smelting and/or refining sources or related activities.

(2) Definitions of terms used in this rule may be found in 10 CSR 10-6.020 Definitions and Common Reference Tables.

(3) Restriction of Concentration of Sulfur Compounds in Emissions.

(A) Existing Sources. No person shall cause or permit the emission into the atmosphere gases containing more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide or more than seventy milligrams per cubic meter (70 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

(B) New Sources. No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

(C) Compliance with section (3) shall be determined by source testing. Source testing to determine compliance shall be done as specified in 10 CSR 10-6.030(6).

(D) Other methods approved by the staff director in advance may be used.

(5) Restriction of Emission of Sulfur Dioxide From Indirect Heating Sources.

(A) Section (5) applies to installations in which fuel is burned for the primary purpose of producing steam, hot water or hot air or other indirect heating of liquids, gases or solids and in the course of doing so the products of combustion do not come into direct contact with process materials. When any products or by-products of a manufacturing process are burned for the same

purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

(B) Indirect heating sources located in Missouri, other than in Franklin, Jefferson, St. Louis, St. Charles Counties or City of St. Louis.

1. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds (8 lbs.) of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in Table I or subject to 10 CSR 10-6.070 New Source Performance Regulations.

2. The following existing indirect heating sources listed in Table I shall limit their average sulfur emissions into the atmosphere to the allowable amount of sulfur dioxide per million BTUs of actual heat input averaged on any consecutive three (3)-hour basis.

Table 1

Facility	Averaging Time	Emission Rate per unit (Pounds Sulfur Dioxide Per Million BTUs)
Associated Electric Cooperative—New Madrid	3 hours	10.0
Associated Electric Cooperative—Thomas Hill	3 hours	8.0
Central Electric Power Cooperative—Chamois	3 hours	6.7
City Utilities—James River Plant	3 hours	9.2
Empire District Electric Company—Asbury Station	3 hours	12.0
Independence Power and Light—Blue Valley Station	3 hours	6.3
Trigen—Grand Ave. Plant	3 hours	9.0*
Kansas City Power & Light—Hawthorn Plant	3 hours	6.1*
Kansas City Power & Light—Montrose Station	3 hours	12.9*
Missouri Public Service Company—Sibley Plant	3 hours	9.0
St. Joseph Light & Power—Lake Road Plant	3 hours	8.6
University of Missouri—Columbia	3 hours	8.0

*Grand Ave., Hawthorne, and Montrose Plants have State Enforceable Agreements to limit their sulfur dioxide emission rates such that their emissions shall not exceed 7.1 pounds, 1.3 pounds, and 1.3 pounds SO₂ per million BTU heat input, respectively.

3. Compliance with subsection (5)(B) shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be done as specified in

10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.

4. Other methods approved by the staff director in advance may be used.

5. Owners or operators of sources and installations subject to subsection (5)(B) of this regulation shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

(C) Indirect heating sources located in Franklin, Jefferson, St. Louis, St. Charles Counties or City of St. Louis.

1. Restrictions applicable to installations with a capacity of two thousand (2000) million or more BTUs per hour.

A. No person shall cause or permit the emission of sulfur dioxide to the atmosphere from any installation with a capacity of two thousand (2000) million or more BTUs per hour in an amount greater than two and three-tenths pounds (2.3 lbs.) of sulfur dioxide per million BTUs of actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in subparagraph (5)(C)1.B. or is subject to 10 CSR 10-6.070 New Source Performance Regulations.

B. The following existing installations shall limit their sulfur dioxide emissions into the atmosphere from the combustion of any fuels to the allowable amount of sulfur dioxide per million BTUs of actual heat input listed:

Facility	Emission Rate per unit* (Pounds Sulfur Dioxide Per Million BTUs)
Union Electric—Labadie Plant	4.8
Union Electric— Portage des Sioux Plant	4.8

*Daily average, 00:01 to 24:00

C. Owners or operators of sources and installations subject to subsection (5)(C) of this regulation shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

D. Each source subject to limitations under paragraph (5)(C)1. may emit sulfur dioxide at a rate not to exceed the allowable emission rate by more than twenty percent (20%) for not more than three (3) days in any one (1) month.

E. Compliance with subparagraph (5)(C)1.B. shall be demonstrated by sulfur dioxide and either carbon dioxide or oxygen continuous monitoring devices, which devices, within ninety (90) days of the date subparagraph (5)(C)1.B. becomes effective (July 12, 1979) as to any source or before January 1, 1982, in the case of Union Electric Company's Labadie plant, shall be certified by the owner or operator to be installed and operational in accordance with Performance Specifications 2 and 3, 40 CFR part 60, Appendix B (1977). The devices shall also be operated and maintained in accordance with the procedures and standards set out at 40 CFR 60.13(d) and (e)(2) (1977).

F. Reports.

(I) The owner or operator of each source subject to paragraph (5)(C)1. shall submit a written report of excess emissions for each calendar quarter to the director within thirty (30) days following the end of the quarter.

(II) Each quarterly report shall contain the magnitude in pounds per million BTUs of all daily (00:01 to 24:00) averages of sulfur dioxide emissions greater than the emission rate allowed by subparagraph (5)(C)1.B.

(III) Each report shall identify each period during which the continuous monitoring system was inoperative, except for zero and span checks and the nature of repairs and adjustments performed to make the system operative.

(IV) Each report shall also contain a statement that no excess emissions occurred during the quarter, except as reported or during periods when the continuous monitoring system was inoperative. Data reduction and conversion procedures shall conform to the provisions of 40 CFR 60.13(h) and 60.45(e) and (f) (as corrected at 42 FR 41122) (1977).

(V) Each owner or operator required to file

quarterly reports under this paragraph and, for a minimum of two (2) years from the date of the quarterly report, shall maintain a file of the following:

(a) All information reported in the quarterly reports;

(b) All other data collected by the continuous monitoring system or necessary to convert the monitoring data to the units of the applicable emission limitation;

(c) All continuous monitoring system performance evaluations;

(d) All continuous monitoring system or monitoring device calibration checks;

(e) Monitoring system, monitoring device and performance testing measurement;

(f) Adjustments and maintenance performed on these systems or devices; and

(g) Files shall be kept available for inspection by the director during regular business hours.

2. Restrictions applicable to installations with a capacity of less than two thousand (2000) million BTUs per hour.

A. During the months of October, November, December, January, February and March of every year, no person shall burn or permit the burning of any coal containing more than two percent (2%) sulfur or of any fuel oil containing more than two percent (2%) sulfur in any installation having a capacity of less than two thousand (2000) million BTUs per hour. Otherwise, no person shall burn or permit the burning of any coal or fuel oil containing more than four percent (4%) sulfur in any installation having a capacity of less than two thousand (2000) million BTUs per hour.

B. Subparagraph (5)(C)2.A. of this rule shall not apply to any installation if it can be shown that emissions of sulfur dioxide from the installation into the atmosphere will not

10 CSR 10-6.260

exceed two and three-tenths (2.3) pounds per million BTUs of heat input to the installation.

C. Owners or operators of sources and installations subject to this section shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

3. Compliance with subsection (5)(C) shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be done as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.

4. Other methods approved by the staff director in advance may be used.

(6) Emission of Sulfur Dioxide From Existing Lead Smelters and Refineries.

(A) Each of the following existing installations listed in Table II engaged in smelting and/or refining lead shall limit its sulfur dioxide emissions from the sources or stacks, as described, to the amount of sulfur dioxide set forth here.

Table II

Facility	Averaging Time	Emission Limitation (Pounds SO ₂ /Hr)
ASARCO Incorporated Lead Smelter and Refinery— Glover, Missouri	1 hour test repeated 3 times	
Two stacks:		
Sinter machine off-gas stack		20,000
Blast furnace baghouse stack		1,056
Doe Run Company, Buick Smelter—Boss, Missouri	1 hour test repeated 3 times	8,650
Doe Run Company, Herculaneum Smelter—Herculaneum, Missouri	1 hour test repeated 3 times	20,000

(B) Compliance with subsection (6)(A) shall be determined by source testing as referenced in 10 CSR 10-6.030(6), except that the source testing shall consist of averaging three (3) separate one (1)-hour tests using the applicable testing method.

(C) Secondary lead smelting installations shall install, calibrate, maintain and operate an SO continuous emission monitoring system, for the purpose of demonstrating compliance status, relative to section (3).

1. Certification.

A. The continuous emission monitoring systems shall be certified by the owner or operator in accordance with 40 CFR part 60 Appendix B, Performance Specification 2 and Section 60.13 as is pertinent to SO continuous monitors as adopted by reference in 10 CSR 10-6.070.

B. The span of the SO continuous monitor shall be set at an SO concentration of one-fifth percent (0.20%) by volume.

C. For the purpose of the SO continuous monitor performance evaluation, the reference method referred to under the Field Test for Accuracy in Performance Specification 2 shall be Reference Method 6, 10 CSR 10-6.030(6). For this method, the minimum sampling time is twenty (20) minutes and the minimum volume is 0.02 dry standard cubic meter (dscm) for each sample. Samples are taken at sixty (60)-minute intervals and each sample represents a one (1)-hour average.

2. Reports.

A. The owner or operator of each source subject to subsection (6)(C) shall submit a written report of excess emissions for each calendar quarter to the director within thirty (30) days following the end of the quarter. The director shall specify a reporting format.

B. Each quarterly report shall contain the magnitude in parts per million of each two (2)-hour arithmetic average of sulfur dioxide emissions greater than the emission rate allowed by section (3).

C. Each report shall identify each period during which the continuous monitoring system was inoperative, except for zero and span checks and the nature of repairs and

adjustments performed to make the system operative.

D. Each report also shall contain a statement that no excess emissions occurred during the quarter except as reported or during periods when the continuous monitoring system was inoperative. Data reduction and conversion procedures shall conform to the provisions of 40 CFR 60.13(h) and 60.45(e) and (f).

E. Each owner or operator required to file quarterly reports under this paragraph and for a minimum of two (2) years from the date of the quarterly report, shall maintain a file of the following:

(I) All information reported in the quarterly reports;

(II) All other data collected by the continuous monitoring system or necessary to convert the monitoring data to the units of the applicable emission limitation;

(III) All continuous monitoring system performance evaluations;

(IV) All continuous monitoring system or monitoring device calibration checks;

(V) Monitoring system, monitoring device and performance testing measurements;

(VI) Adjustments and maintenance performed on these systems or device; and

(VII) Files shall be kept available for inspection by the staff director during regular business hours.

3. Compliance schedule. Installation and certification of the continuous monitoring systems shall follow the schedule as follows:

A. Submit design and specifications to director December 1986;

B. Installation complete March 1987;

C. Complete performance evaluation for

certification May 1987;

D. Submit performance evaluation report May 1987;
and

E. Begin regular operation of the continuous
monitor and quarterly reporting procedures May 1987.

(D) Owners or operators of sources and installations
subject to this section shall furnish the director such data as
s/he may reasonably require to determine whether compliance is
being met.

AUTHORITY: section 643.050, RSMo (Supp. 1995).* Original rule
filed Jan. 19, 1996, effective Aug. 30, 1996.

*Original authority 1965, amended 1972, 1992, 1993, 1995.

10 CSR 10-6.260

EPA Rulemakings

CFR: 40 C.F.R. 52.1320(c)(108) and 62.6350(b)(3)

FRM: 63 FR 45727 (8/27/98)

PRM: 63 FR 13154 (3/18/98)

State Submission: 8/12/97

State Proposal: 21 MR (7/1/96) 1616

State Final: 10 C.S.R. 10-6 (7/31/96)

APDB File: MO-95

Description: This rule consolidates the SO₂ requirements previously contained in eight separate rules into one statewide rule (10 C.S.R. 10-2.160, 2.200, 3.100, 3.150, 4.150, 4.190, 5.110, and 5.150). Section (3) of the rule was approved only pursuant to section 111(d) of the Clean Air Act.

[illegible]

Difference Between the State and EPA-Approved Regulation

The EPA did not approve section (4) of the state rule.